Amendments to and listing of the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended) A method for efficiently utilizing spectrum resources, comprising:

determining multiple ~~at least one~~ spectrum opportunities ~~opportunity~~, wherein each ~~said~~ opportunity is identified by a frequency range and a time duration;

determining whether signals are present in said identified frequency range, wherein if the signals are present, then analyzing said signals and determining the characteristics of said signals;

if the signals are not present in said identified frequency range, then transmitting desired signals using fixed operating conditions;

wherein if the signals are present in said identified frequency range, then

determining a set of altered transmission characteristics based on the determined signal characteristics to allow for transmission of a desired signal in said identified frequency range, wherein said altered transmission characteristics avoid interference with signals expected in said frequency range; and

transmitting said desired signal over the multiple spectrum opportunities simultaneously using said altered transmission characteristics when said transmission occurs during said time duration;

wherein said determining multiple ~~at least one~~ spectrum opportunities ~~opportunity~~ comprises:

determining a location of a receiving device;

obtaining location and transmission characteristics for known transmitters from at least one database; and

determining an estimated received signal characteristics based on the location and transmission characteristics of said transmitters and a location of said receiving device.

2. (Cancelled)

3. (Previously presented) The method as recited in claim 1, further comprising:

determining a time period of reception of said received signals.

4. (Previously presented) The method as recited in claim 1, wherein said received signal characteristics are selected from the group consisting of: received power, modulation, modulation rate and bandwidth.

5. (Cancelled)

6. (Previously presented) The method as recited in claim 1, wherein said receiving device location is selected from the group consisting of: GPS location, and manual input.

7. (Currently amended) The method as recited in claim 1, wherein an occurrence of said determining multiple ~~at least one~~ spectrum opportunities ~~opportunity~~ is performed at a rate selected from the group consisting of: periodic, time lapse from a prior occurrence, on a known event.

8. (Currently amended) A device for effectively utilizing frequency spectrum resources, comprising:

a memory;

a receiving unit for receiving signals and providing received signal characteristics to a processor;

said processor, in communication with said memory, executing code for:

receiving information items regarding multiple ~~at least one~~ spectrum opportunities ~~opportunity~~, wherein each ~~said~~ opportunity is identified by a frequency range and a time duration;

determining whether signals are present in said identified frequency range, wherein if the signals are present, then analyzing said signals and determining the

characteristics of said signals;

if the signals are not present in said identified frequency range, then transmitting desired signals using fixed operating conditions;

wherein if the signals are present in said identified frequency range, then

determining a set of altered transmission characteristics based on the determined signal characteristics to allow for transmission of a desired signal in said identified frequency range, wherein said altered transmission characteristics avoid interference with signals expected in said frequency range;

enabling transmission of said desired signal over the multiple spectrum opportunities simultaneously ~~in said opportunity frequency range~~ using said altered transmission characteristics when transmission of said desired signal occurs during said ~~opportunity~~ time duration; and

determining said multiple ~~at least one~~ spectrum opportunities ~~opportunity~~ information items based on location and transmitting characteristics of known transmitting signals stored in a database and a location of said device.

9. (Cancelled)

10. (Previously presented) The device as recited in claim 8, wherein said processor further executing code for;

determining said multiple ~~at least one~~ spectrum opportunities ~~opportunity~~ information items based on said received signal characteristics.

11. (Cancelled)

12. (Previously presented) The device as recited in claim 8, further comprising:

an input/output unit in communication with said processor and said memory.

13. (Previously presented) The device as recited in claim 8, wherein said code is stored in said memory.

14. (Original) The device as recited in claim 8, further comprising:

a transmitting unit for transmitting said desired signal.

15. (Currently amended) A wireless communication system, comprising:

a receiving unit for receiving information items regarding at least one receivable signal;

a processing unit for determining multiple ~~at least one~~ spectrum opportunities ~~opportunity~~ , wherein each opportunity is identified by a frequency range and a time duration, and for determining whether signals are present in said identified frequency range, wherein if the signals are present, then analyzing said signals and determining the characteristics of said signals;

a managing unit for altering, if the signals are present in said identified frequency range, transmission characteristics of a desired signal based on said at least one spectrum opportunity and said determined received signal characteristics, wherein said altered transmission characteristics avoid interference with said received signals; and

a transmission unit receiving said altered transmission characteristics to transmit said desired signal over the multiple spectrum opportunities simultaneously using said altered transmission characteristics, and if no signals are present in said identified frequency range said transmission unit is arranged to send desired signals using fixed operating conditions, wherein said receiving unit includes a processor for receiving information associated with location and transmission characteristics of known transmitting signals and said information items are determined from said location and transmission characteristics of said known transmitting signals.

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Original) The system as recited in claim 15, wherein said altered transmission characteristics are selected from the group consisting of: power, modulation, modulation type, and coding rate.

20. (Previously presented) The system as recited in claim 15, wherein said desired signal transmission power in a frequency range of said received signals is substantially higher when said received signals are not present.

21. (Original) The system as recited in claim 15, wherein said desired signal transmission characteristics are altered in a frequency range/time period to avoid interference with received signals in said frequency range.